



Technical submittal



Products: **Buffer tanks**
Project:
Customer:

Buffer size (L):

Date:

Compatible with the Tyneham 290HT and Tyneham models

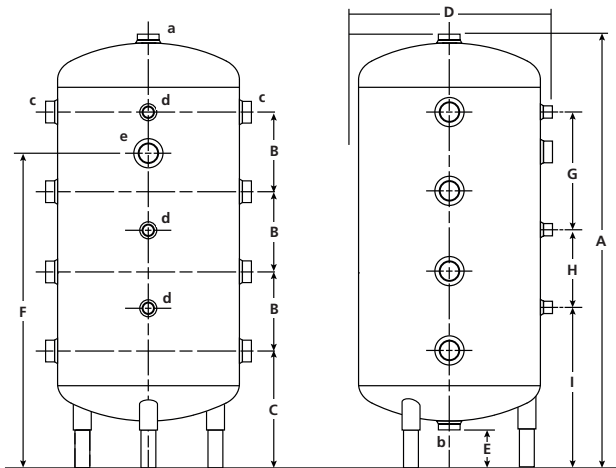
A buffer tank is typically just an insulated vessel of water; it doesn't usually contain any coils or heat exchangers; most will have top and bottom connections, and some will have a baffle plate internally. The primary role of a buffer tank is to keep a minimum volume of water 'in circuit' at times when the heating load is very low. This prevents the

heat pump from short cycling and provides a bypass route to maintain the minimum flow rate through the heat pump if most of the heating zones have shut down. Both the minimum flow rate and the minimum volume of water in circuit are necessary to keep the heat pump happy. Short cycling can cause several issues: loss

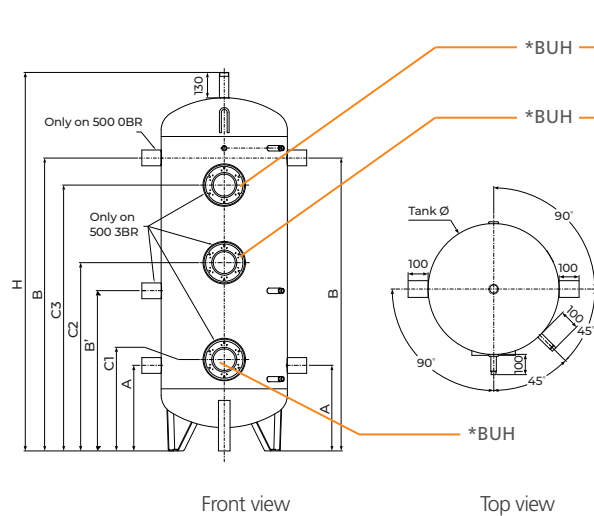
of energy efficiency, reduced compressor life, power network disruption and, very rarely, sudden compressor failure due to lubrication starvation. Secondary to that, the ASHP needs to defrost. To do this it has to have a volume of warm water to utilise for this function.

Dimensions

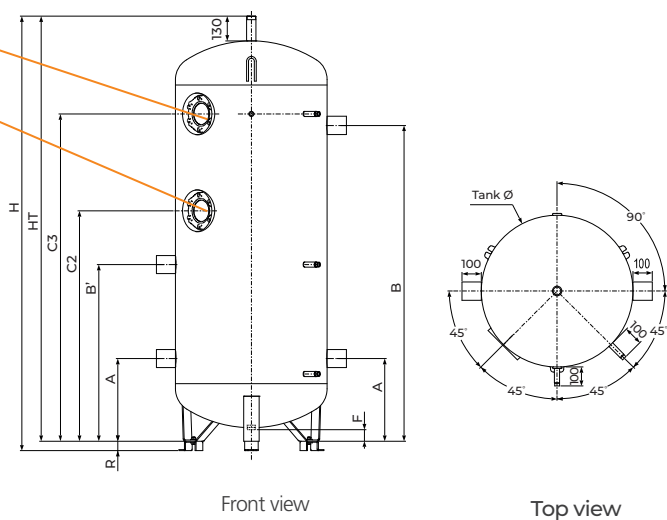
100 L & 200 L



500 L



900 - 1500 L



*BUH - Back up heater mounting points only, must not be used for water flow / return connections.

Every effort has been taken to ensure the details are accurate. Hamworthy Heating does not, however, guarantee the accuracy or completeness of any information nor does it accept liability for any errors or omissions in the information. Hamworthy Heating reserves the right to make changes and improvements which may necessitate alteration to product specification without prior notice.

Products: **Buffer tanks**

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Technical features and performance capabilities

Features	Tank Models					
	100	200	500 0F*	500 3F*	900 2F*	1500 2F*
Useful capacity (L)	95	195	517	517	904	1425
Passage width (mm)	N/A	N/A	680	680	795	1015
Min. room height for installation (mm)	N/A	N/A		2100	2100	2415
Tilting dimension (mm)(1)	N/A	N/A	1980	1980	2240	2270
Empty tank weight (kg)	23	34	72	72	140	180
Thermal losses(2) Ua (W/K). Flexible M1	0.384	0.232	1.38	1.657	2.231	2.778

(1) Risers not mounted.

(2) Storage at 65°C – Ambient temperature at 20°C. Values supported per RT2012.

Dimensions

100 & 200 L models

Refs	100L	200L
A	950	1435
B	170	330
C	255	265
D	460	510
E	80	80
F	690	1070
G	255	485
H	170	325
I	345	440
a	1 1/4" F	1 1/4" F
b	1 1/4" F	1 1/4" F
c	1 1/4" F	1 1/4" F
d	1 1/2" F	1 1/2" F
e	1 1/2" F	1 1/2" F
Weight (kg)	23	34

500 0F, 500 3F, 900 2F, 1500 models

Refs	Designation	Units	Tank Models			
			500 0F*	500 3F*	900 2F*	1500 2F*
Tank Ø	Tank diameter without insulation	mm	650	650	790	1000
HT	Tank overall height (height without riser)	mm	1950	1950	2215	2215
H	Height with risers	mm	1950	1950	2265	2265
A	Lower connection	mm	440	440	430	500
B	Upper connection	mm	1510	1510	1645	1460
B'	Intermediate connection	mm	-	825	920	915
C1	Lower flange height	mm	-	470	-	-
C2	Intermediate flange height	mm	-	970	1200	1077
C3	Upper flange height	mm	-	1370	1705	1630
F	Drainage height	mm	110	110	60	60
R	Riser height	mm	-	-	50	50
1	Temperature probe branch pipe		1/2" F Through type			
2	Thermometer branch pipe		1/2" F Through type			
3	Branch pipe connection		2 1/2" F		3" F	
4	Purge		1 1/2" M		2" M	
5	Drain		1 1/4" F			
BUH	Back-up heater mounting			3-of	2-of	2-of

* 0F = 0 Flanges
 2F = 2 Flanges
 3F = 3 Flanges